

## **Dennis C. Odion**

Vegetation Ecologist  
670 Morton St.  
Ashland, OR. 97520  
541 552-9624  
dennisodion@charter.net

**Research interests:** Plant ecology, conservation biology, vegetation patterns, fire and disturbance ecology, biological resource management, restoration ecology.

### **Education**

Ph.D. Plant Geography, University of California, Santa Barbara, 1995. Dissertation: Effects of variation in soil heating during fire on patterns of plant establishment and regrowth in maritime chaparral. Advisor-Frank W. Davis. Teaching and coursework: biogeography, meteorology, exploratory data analysis, quantitative vegetation analysis, spatial pattern analysis, UNIX and S programming environments, multivariate statistics, remote sensing, GIS.

M.A. Botany, University of California, Santa Barbara. 1984, by exam. Teaching and coursework: California vegetation and flora, plant geography, plant ecology, community ecology, advanced plant taxonomy and systematics, vegetation sampling, physiological plant ecology, plant anatomy and morphology, air photo analysis.

B.A. Environmental Biology, University of California, Santa Barbara. 1981. Coursework emphasis: plant and animal ecology and systematics.

### **Experience**

Vegetation Ecologist. Ecological studies, literature reviews, environmental impact analysis. Field surveys for evaluation of habitats, rare plant distributions, and conservation-related management concerns. Analysis of resource preservation, restoration, and management. 1/84-present.

Assistant Research Biologist, Marine Science Institute, and Institute for Computational Earth Systems Science, UC Santa Barbara. Research on the maintenance and regeneration of the rare Morro Bay manzanita. Response to experimental burning and restoration techniques, seed bank and seed germination studies, floristic surveys of associated species. Research on oak regeneration and restoration in relation to understory and grazing. 1/95-present.

Vegetation ecologist, Marin Municipal Water District, 220 Nellen Ave., Corte Madera, Ca. Management of botanical/biological resources on the 20,000 acre Mt. Tamalpais Watershed. Fire hazard/urban interface and exotic species issues. Rare plant monitoring. Maintained natural resource GIS. 8/95-7/2000.

Post-graduate Research Biologist, Department of Biological Sciences, University of California, Santa Barbara. Research on regeneration of California oaks. 1995.

Research Assistant, Biogeography Lab, Department of Geography, University of California, Santa Barbara. Development of a geographic information system based vegetation map/data base for the Modoc Plateau California ecoregion. 1992-1994.

Research Assistant, Department of Biological Sciences, University of California, Santa Barbara. Analysis and classification of the vegetation of a large desert alkaline wetland area, the Fish Slough Ecosystem, Owens Valley, California, in relation to soil properties. 1988-1991.

Research Assistant, Department of Geography, University of California, Santa Barbara. Investigations on the establishment of microscale pattern following fire in chaparral in relation to variation in soil heating. 1987-1990.

Teaching Assistant, Department of Geography, University of California, Santa Barbara. For California Geography, Quantitative Vegetation Analysis, Biogeography. 9/87- 6/89.

Natural History Instructor, Alpine botany, Audubon Golden Trout Wilderness Camp. 8/88.

Editorial and Education Assistant/Botanist, Santa Barbara Botanic Garden. Wrote and edited publications and reports. Taught field classes, lectured and lead botanical excursions. 6/84-9/87.

Research Assistant, Department of Biology, University of California, Santa Barbara. Designed and conducted a field study on the effects of ryegrass seeding on chaparral post-fire regeneration. 1/84-6/85.

Teaching Assistant, Department of Biology, University of California, Santa Barbara. Taught lab portions of Vegetation and Flora of California, Community Ecology, Advanced Plant Taxonomy and Systematics. 9/83-6/84.

## **Publications**

Odion, Dennis C. and Claudia M. Tyler. In Press. Are long fire-free periods needed to maintain the rare, fire recruiting shrub *Arctostaphylos morroensis* (Ericaceae)? Conservation Ecology.

Odion, Dennis C. and Karen Haubensak, In Press. Response of French broom to fire. Fire in California Ecosystems: Integrating Ecology, Prevention, and Management, 1997, San Diego, CA. International Association of Wildland Fire, Fairfield, WA.  
<http://www.ice.ucdavis.edu/cafe/agenda97/FireEcology/Plants/4feOdion.html>

Odion, Dennis C., Janice Alexander, and Michael Swezy. In Press. Use of prescribed burning to combat non-native plant invasion into California North Coastal Prairie. Fire management: emerging policies and new paradigms, 1999, San Diego, CA. California Association for Fire Ecology.

Odion, Dennis C. 2001. Sudden oak death, a new threat to our forests. Mountains and Rivers 2: 18-19.

Odion, Dennis C. 2001. Book Review: Savannas, Barrens, and Rock Outcrop Communities of North America. Madroño 48: 44-45.

Odion, Dennis C. 2000. Seed banks of long-unburned stands of maritime chaparral: Composition, germination behavior and survival with fire. Madroño 47: 195-203..

Odion, Dennis C., Frank W. Davis. 2000. Fire, soil heating, and the formation of vegetation patterns in chamise chaparral. Ecological Monographs 70: 149-169.

Tyler, Claudia M., Dennis C. Odion, Daniel Meade, and Max Moritz. 2000. Factors affecting regeneration of Morro Manzanita (*Arctostaphylos morroensis*): reproductive biology and response to prescribed burning. Report for California Department of Fish and Game. 38p.

Swezy, Michael and Dennis C. Odion. 1998. Fire on the mountain; a land-manager's manifesto for broom control. Pages 76-81 in California Exotic Pest Plant Council's 1997 Symposium.  
<http://www.caleppc.org/symposia/97symposium/swezy.html>.

Tyler, Claudia M., Dennis C. Odion, and Daniel Meade. 1998. Reproductive biology and the conservation of Morro Manzanita (*Arctostaphylos morroensis*). Report for California Department of Fish and Game. 30p.

- Davis, Frank W., David M. Stoms, Allan D. Hollander, Kathryn A. Thomas, Peter A. Stine, Dennis C. Odion, Mark I. Borchert, Jim H. Thorne, M. Violet Gray, Richard E. Walker, K. Warner, and J. Graae. 1998. The California Gap Analysis Project—Final Report. University of California, Santa Barbara.
- Odion, Dennis C., David Stoms, and Frank W. Davis. 1997. Gap analysis of the land-cover of the Modoc Plateau region. Pages 204-212 in California Gap Analysis: a geographic analysis of biodiversity. University of California, Santa Barbara.
- Tyler, Claudia M. and Dennis C. Odion. 1996. Ecological studies of Morro Manzanita (*Arctostaphylos morroensis*). Report for California Department of Fish and Game. 43p.
- Borchert, Mark I. and Dennis C. Odion. 1995. Fire intensity and vegetation recovery in chaparral: a review. Pages 91-100 in Brushfires in California Wildlands: Ecology and resource management. International Association of Wildland Fire, Fairfield, WA.
- Odion, Dennis C. 1995. Effects of variation in soil heating during fire on patterns of plant establishment and regrowth in maritime chaparral, Dissertation, University of California, Santa Barbara. 289p.
- D'Antonio, Carla M., Dennis C. Odion, and Claudia Tyler. 1993. Invasion of maritime chaparral by the alien succulent *Carpobrotus edulis*: The roles of fire and herbivory. *Oecologia* 95: 14-21.
- Odion, Dennis C., Storrer, John, and Vince Semonsen. 1993. Biological Resources of the Burton Mesa Land Acquisition Parcel: Inventory and Analysis of Restoration and Management Needs. Report for Santa Barbara County, Resource Management Department.
- Odion, Dennis C., Diana E. Hickson, and Carla M. D'Antonio. 1992. Central Coast Maritime Chaparral on Vandenberg Air Force Base: an inventory and analysis of management needs for a threatened vegetation association. Prepared for The Nature Conservancy. 42p, 70 maps.
- Odion, Dennis C., Ragan M. Callaway, Wayne R. Ferren Jr., and Frank W. Davis. 1992. Vegetation of Fish Slough, an Owens Valley Wetland Ecosystem. Pages 173-197 in C.K. Hall, V. Doyle-Jones and B. Widawski (eds.) History of Water: Eastern Sierra Nevada, Owens Valley, White-Inyo Mountains. University of California Press.
- Haller, John R., Wayne R. Ferren, Jr., Ragan M. Callaway, Dennis C. Odion, and Frank W. Davis. 1992. A phytogeographic comparison of the vascular flora of the wetlands of Fish Slough with the floras of neighboring desert basins. Pages 111-122 in C.K. Hall, V. Doyle-Jones and B. Widawski (eds.) History of Water: Eastern Sierra Nevada, Owens Valley, White-Inyo Mountains. University of California Press.
- Davis, Frank W., Mark I. Borchert, and Dennis C. Odion. 1989. Establishment of Microscale Pattern in Chaparral Following Fire. *Vegetatio* 84: 53-67.
- Odion, Dennis C. 1989. Native grassland resources in Santa Barbara County: an evaluation of preserve sites and mitigation policy. Prepared for Santa Barbara County, Resource Management Department. 24 p. 8 maps.
- Philbrick, Ralph. and Dennis C. Odion. 1988. An analysis of potential preserve locations for Burton Mesa Chaparral. Prepared for Santa Barbara County Resource Management Department. 24 p. 2 maps.
- Davis, Frank W., Diana E. Hickson, and Dennis C. Odion. 1988. Vegetation composition in relation to age since burning and soil factors in maritime chaparral, California. *Madroño* 35: 169-195.

- Odion, Dennis C. 1988. Fire and the Chaparral of the Los Padres. Los Padres Notes 4: 8-15.
- Odion, Dennis C. 1988. Guide to the Santa Barbara Botanic Garden. Santa Barbara Botanic Garden, Santa Barbara, Ca. 46p.
- Odion, Dennis C., Tom L. Dudley, and Carla D'Antonio. 1988. Cattle grazing in southeastern Sierran meadows: ecosystem change and prospects for recovery. Pages 277-292 in Clarence A. Hall and Vicki Doyle-Jones (eds.) Plant Biology of Eastern California. White Mountain Research Station Symposium Vol. 2.
- Odion, Dennis C., Mary C. Carroll, and Carol J. Bornstein. 1988. Revegetation in Santa Barbara County: enduring dilemmas and potential solutions. Pages 76-91 in Proceedings of the Native Plant Revegetation Symposium, San Diego, Ca., April 1987. California Native Plant Society.
- Nadkarni, Nalini M. and Dennis C. Odion. 1985. Effects of seeding exotic grass *Lolium multiflorum* on native seedling regeneration following fire in a chaparral community. Pages 115-121 in Chaparral Ecosystem Research Conference, Santa Barbara Ca., 1985. California Water Resources Center Report no. 62.
- Odion, Dennis C. 1985. Noteworthy Collections, *Dicentra pauciflora*. Madroño 32: 57.

#### Manuscripts in preparation

- Odion, Dennis C., James R. Strittholt, Hong Jiang, Evan J. Frost, and Dominick A. DellaSala. Fire Severity Patterns and Forest Management in the Klamath National Forest, Northwestern California, U.S.A. Ecological Applications, in review.
- Odion, Dennis C. and Claudia M. Tyler. Seed bank of a rare fire-dependent shrub, *Arctostaphylos morroensis*, and its germination behavior. To be submitted to Oecologia.

#### Other professional activities

Presentations at scientific meetings, lectures, natural history instructor and field trip leader. Recent reviewer of manuscripts for *Ecology*, *Plant Ecology*, and *Madroño*, technical reports, newsletter articles, fire management planning, undergraduate advising, natural resource related community service.

#### References

- Mark I. Borchert, Ph.D. Regional Ecologist, Los Padres National Forest, 11190 E, Ojai Ave, Ojai, Ca. Work-(805) 646-4348(x305), home-(805) 647-7249.
- Carla M. D'Antonio, Associate Professor, Department of Integrative Biology, University of California, Berkeley, Ca. 94720. Work-(510) 967-8255, e-mail dantonio@socrates.berkeley.edu, home-(510) 967-7258, fax-(510) 643-6264.
- Frank W. Davis, Associate Professor of Geography, University of California, Santa Barbara, Ca. 93106. Work-(805) 893-3438, home-(805) 566-0104, fax-(805) 893-3146, email fd@ucsb.edu.
- John Robert Haller, Emeritus Associate Professor of Biological Sciences, University of California, Santa Barbara, Ca. 93106. Work-(805) 893-2252, home, fax-(805) 893-4726.
- Ralph N. Philbrick, Ph.D. Biological Consultant. 29 San Marcos Trout Club, Santa Barbara, Ca. 93105.

Work and home-(805) 967-0875, email troutclub@earthlink.net.

Michael Swezy. Resource Specialist, Marin Municipal Water District. P.O. Box 865, Fairfax, Ca. 94978.  
Work-(415) 945-1190, email mswezy@marinwater.org.

Claudia M. Tyler. Post-doctoral Researcher. Marine Science Institute, University of California, Santa Barbara, Ca. Home/work-(805)455-5711, email tyler@lifesci.ucsb.edu.

**Professional Organizations**

Ecological Society of America  
California Botanical Society  
California Native Plant Society  
Native Plant Society of Oregon